



The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES



Robert R. Scott, Commissioner

EMAIL ONLY

September 28, 2018

April Talon, P.E.
Town Engineer
Durham Public Works
100 Stone Quarry Drive
Durham, NH 03824

Subject: **Durham** – Closed Durham Municipal Landfill, Durham Point Road
DES Site #199006011, Project #2115

Groundwater Management Permit Renewal Application, prepared Stantec
Consulting Services Inc. (Stantec), dated July 26, 2018

Dear Ms. Talon:

Please find enclosed Groundwater Management Permit Number **GWP-199006011-D-005**, approved by the New Hampshire Department of Environmental Services (NHDES). This Permit is issued for a period of 5 years to monitor groundwater quality at the above-referenced site, and is a renewal of your Permit that expired on March 20, 2018.

Please continue to address all required sampling results and monitoring summaries to the NHDES Groundwater Management Permits Coordinator. Include with all correspondence the appropriate [Cover Sheet for Reports](#) and [Cover Sheet for Groundwater Monitoring Reports](#) that clearly show the NHDES identification number for the site (DES Site #199006011, Project #2115).

Based on our review of the above document, we developed the comments that follow below. Comments requiring a response from the Town and/or Stantec are summarized in ***bold italicized font***.

1. Based on our review of the latest groundwater monitoring results (updated through the April 2018 sampling round) and the related information provided in the Groundwater Management Permit Renewal Application, NHDES concludes that the overall water quality conditions remain generally consistent with the recent prior findings. We note the detection of methyl tert-butyl ether (MTBE), at a concentration below the Ambient Groundwater Quality Standard (AGQS), at the Site's water supply well W-1 during three of the last four April monitoring events; dating back to 2015. ***Please continue to monitor and evaluate the occurrence of MTBE at W-1 as required by the Permit.***
2. At this time, NHDES has not received results from the initial per- and polyfluoroalkyl substances (PFAS) groundwater screening, which is required to be performed during 2018 as indicated by our [May 18, 2017 letter](#). As discussed within the letter, NHDES has adopted an AGQS for the PFAS perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA), of 70 parts per trillion (0.070 µg/L), individually or as a sum total of the two.

Sampling for PFAS at municipally- owned sites (such as the Durham Municipal Landfill) is required prior to December 31, 2018. NHDES expects that the ***sampling for PFAS***

www.des.nh.gov

PO Box 95, 29 Hazen Drive, Concord, NH 03302-0095

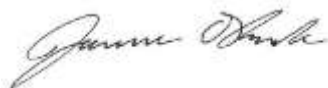
Telephone: (603) 271-2908 Fax: (603) 271-2181 TDD Access: Relay NH 1-800-735-2964

will be performed in October 2018. Based on the prior history of contaminant detections, site conceptual model, and consideration of compliance locations for the site GMZ; site sample locations MW-3U, MW-3L, MW-5, SW-1, and W-1 should be sampled as part of the initial screening. At minimum, sample locations should be sampled for PFAS listed in the [Guidance Document](#) prepared by NHDES. NHDES strongly recommends that industry-standard protocols specific to sampling groundwater for the presence of PFAS be used for well purging, sample collection, and handling methods, and that the sampling be performed by trained personnel familiar with these protocols. Guidance and other technical information regarding PFAS investigations can be found at the following link: <https://www4.des.state.nh.us/nh-pfas-investigation/>. ***Please complete PFAS sampling at monitoring locations MW-3U, MW-3L, MW-5, SW-1, and W-1 during the October 2018 Permit monitoring event. The results should be included with the December 2018 Data Transmittal and include an evaluation of the PFAS results and recommendations for future monitoring or other actions.***

3. Please note that, along with the routine submittal of documents through NHDES' OneStop, NHDES is requesting all PFAS analytical results be uploaded to NHDES' Environmental Monitoring Database (EMD). Storage of PFAS analytical data in the EMD allows NHDES to use geographic information systems (GIS) in a state-wide assessment of the data. Guidance for the EMD upload process can be found at (<https://www.des.nh.gov/organization/commissioner/documents/pfas-emd-guidance.pdf>). ***Please upload analytical results from the PFAS monitoring round to NHDES' EMD.***
4. Please note NHDES' Waste Management Division document submittal guidelines have been updated. Of note, all documents submitted electronically must include a "[Report Cover Sheet](#)," which provides site name, site number, project number, and municipality as listed in the OneStop database. Also please note that submittals of monitoring data should also include a "[Groundwater Monitoring Report Cover Sheet](#)," which includes a brief summary checklist regarding the data being submitted. Complete details can be found on NHDES' [Electronic and Paper Copy Submittal Guidelines](#) memo dated November 2017. ***Please submit future submittals consistent with the above guidelines.***

NHDES appreciates the Town's on-going efforts to maintain compliance with the requirements of the site Permit with the submittal of the above-referenced document. If you have any questions with regard to our comments, please contact me directly at NHDES' Waste Management Division.

Sincerely,



James O'Rourke, P.G.
Waste Management Division
Tel: (603) 271-2909
Fax: (603) 271-2181
Email: James.O'Rourke@des.nh.gov

cc: Paul Rydel, P.G., HWRB/NHDES
Linda Birmingham, C.P.M., SWMB/NHDES
Donald F. Moore, P.G., Stantec Consulting Services Inc.



The

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES

hereby issues

GROUNDWATER MANAGEMENT PERMIT NO. GWP-199006011-D-005

to the permittee

TOWN OF DURHAM

to monitor the groundwater quality at the

CLOSED DURHAM MUNICIPAL LANDFILL
(Durham Point Road)

in Durham, N.H.

via the groundwater monitoring system comprised of

8 monitoring wells, 1 water supply well, and 3 surface water sampling locations

as depicted on the Site Plans entitled

“SITE PLAN” (Figure 4) dated July 6, 2018,
prepared by Stantec Consulting Services Inc. and
“BOUNDARY PLAN” (DWG No. 1) dated May 3, 2002,
prepared by Underwood Engineers, Inc.

TO: TOWN OF DURHAM
DEPARTMENT OF PUBLIC WORKS
100 STONE QUARRY DRIVE
DURHAM, NH 03824

Date of Issuance: September 28, 2018

Date of Expiration: September 27, 2023

Pursuant to authority in N.H. RSA 485-C:6-a, the New Hampshire Department of Environmental Services (NHDES), hereby grants this Permit to monitor past discharges to the groundwater at the above-described location for five years, subject to the following conditions:

(continued)

STANDARD MANAGEMENT PERMIT CONDITIONS

1. The permittee shall not violate Ambient Groundwater Quality Standards adopted by NHDES (N.H. Admin. Rules Env-Or 600) in groundwater outside the boundaries of the Groundwater Management Zone, as shown on the referenced site plan.
2. The permittee shall not cause groundwater degradation that results in a violation of surface water quality standards (N.H. Admin. Rules Env-Wq 1700) in any surface water body.
3. The permittee shall allow any authorized staff of NHDES, or its agent, to enter the property covered by this Permit for the purpose of collecting information, examining records, collecting samples, or undertaking other action associated with this Permit.
4. The permittee shall apply for renewal of this Permit prior to its expiration date but no more than 90 days prior to expiration.
5. This Permit is transferable only upon written request to, and approval of, NHDES. Compliance with the existing Permit shall be established prior to Permit transfer. Transfer requests shall include the name and address of the person to whom the Permit transfer is requested, the signatures of the current and future permittees, and a summary of all monitoring results to date.
6. NHDES reserves the right, under N.H. Admin. Rules Env-Or 600, to require additional hydrogeologic studies and/or remedial measures if NHDES receives information indicating the need for such work.
7. The permittee shall maintain a water quality monitoring program and submit monitoring results to NHDES no later than 45 days after sampling. Samples shall be taken from the monitoring wells and surface water sampling points as shown and labeled on the referenced site plan, and listed in the following table in accordance with the schedule outlined herein:

Monitoring Locations	Sampling Frequency	Parameters
MW-1U, MW-1L, MW-2, MW-3U, MW-3L, MW-4U, MW-4L, MW-5, W-1, SW-1, SW-2, and SW-3	April and October of each year	Specific conductance @25°C, pH, chloride, nitrate, TKN, sodium, iron, manganese, and static water level elevation (monitoring wells only).
Same as above	April 2020	NHDES Waste Management Division Full List of Analytes for Volatile Organics including 1,4-dioxane (using a 0.25 ug/l reporting limit), and Drinking Water Metals.
MW-3U, MW-3L, MW-5, W-1, and SW-3	April of each year	NHDES Waste Management Division Full List of Analytes for Volatile Organics including 1,4-dioxane (using a 0.25 ug/l reporting limit),

Sampling shall be performed in accordance with the documents listed in Env-Or 610.02 (e). Samples shall be analyzed by a laboratory certified by the U.S. Environmental Protection Agency, or NHDES pursuant to Env-C 300. All overburden groundwater samples collected for metal analyses (iron, manganese, and Drinking Water Metals) shall be analyzed for dissolved metals; and thus must be field filtered (with a 0.45-micron filter) and acidified after filtration in the field. Surface water samples, and groundwater samples collected from bedrock or water supply wells, shall be analyzed for total metals, and shall not be filtered. As referred to herein, the term "Drinking Water Metals" refers to arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver.

Summaries of water quality shall be submitted in the months of June 2020 and June 2022 to NHDES' Waste Management Division, using a format acceptable to NHDES. The Summary Report shall include the information listed in Env-Or 607.04 (a), as applicable.

The Periodic Summary Report shall be prepared and stamped by a professional engineer or professional geologist licensed in the State of New Hampshire.

8. Issuance of this Permit is based on the Groundwater Management Permit Renewal Application dated July 26, 2018, and the historical documents found in NHDES file DES #199006011. NHDES may require additional hydrogeologic studies and/or remedial measures if invalid or inaccurate data are submitted.
9. Within 30 days of discovery of a violation of an ambient groundwater quality standard at or beyond the Groundwater Management Zone boundary, the permittee shall notify NHDES in writing. Within 60 days of discovery, the permittee shall submit recommendations to correct the violation. NHDES shall approve the recommendations if NHDES determines that they will correct the violation.
10. All monitoring wells at the site shall be properly maintained and secured from unauthorized access or surface water infiltration.

ADDITIONAL CONDITION FOR LANDFILLS

11. The permittee shall maintain the capping system at the facility so that it continues to meet the standards set forth in Env-Sw 805.10.

SPECIAL CONDITIONS FOR THIS PERMIT

12. Recorded property within the Groundwater Management Zone includes the lots, or portion thereof, as listed and described in the following table:

Tax Map / Lot No.	Property Address	Owner Name and Address	Deed Reference (Book / Page)
16/1-3	Durham Point Road Durham, NH 03824	Town of Durham 15 Newmarket Road Durham, NH 03824	826/12, 825/302 523/233, 278/348
Portion of 16/4-4 *	Durham Point Road Durham, NH 03824	Lockhardt Family Trust Madeline Lockhardt, Trustee Durham Point Road Durham, NH 03824	1359 / 635

*The portion of Lot No. 16/4-4 included in the site Groundwater Management Zone is approximately 0.75-acre in size (and triangular in shape), and lies along the common property boundary with the Town-owned Lot No. 16/1-3 – beginning 400 feet southerly of the southeastern property corner of Lot 1-2 as shown on the plan entitled “Groundwater Management Zone and Sampling Plan for Groundwater Management Permit,” dated July 1995, and prepared by Nobis Engineering, Inc. (Nobis). This plan is referenced in the recorded notice of the Permit (at Book 1927, Page 0042), and is on file with the Durham Department of Public Works.

13. The permittee shall update the ownership information required by Env-Or 607.03(a)(20) for all properties within the Groundwater Management Zone prior to renewal of the Permit, or upon a recommendation for site closure.



Karlee A. Kenison, P.G., Administrator
Hazardous Waste Remediation Bureau
Waste Management Division

Any person aggrieved by any terms or conditions of this Permit may appeal to the N.H. Waste Management Council (“Council”) by filing an appeal that meets the requirements specified in RSA 21-O:14 and the rules adopted by the Council, Env-WMC 200. The appeal must be filed **directly with the Council within 30 days** of the date of this decision and must set forth fully **every ground** upon which it is claimed that the decision complained of is unlawful or unreasonable. Only those grounds set forth in the notice of appeal can be considered by the Council.

Information about the Council, including a link to the Council's rules, is available at <https://nhec.nh.gov/> (or more directly at <https://nhec.nh.gov/waste/index.htm>). Copies of the rules also are available from NHDES' Public Information Center at (603) 271-2975.

GWP-199006011-D-005